No. 8100014

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Northrup King Co.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

COMMON WHEAT

'771'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 18th *day of* February *in the year of our Lord one thousand nine hundred and* eighty-two.

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

FORM APPROVED
OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY
77S 611	771	PV NUMBER 8100014
2. KIND NAME: Wheat, Common	3. GENUS AND SPECIES NAME: Triticum aestivum	FILING DATE: 11/05/80 — TIME: 11:30 A.M. / P.M.
4. FAMILY NAME (BOTANICAL): Gramineae	5. DATE OF DETERMINATION: October, 1978	FEE RECEIVED: $ 500.00 / $ 250.00 — DATE: 11/05/80 / 12/4/81

6. NAME OF APPLICANT(S)	7. ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)	8. TELEPHONE AREA CODE AND NUMBER
Northrup King Co.	1500 Jackson St., N.R. Minneapolis, MN 55413	612-781-5305

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (*Corporation, partnership, association, etc.*)	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Delaware	1896

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:

Robert W. Romig
Northrup King Co.
1500 Jackson St. N.E.
Minneapolis MN 55440

13. **CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:**

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [X] NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?
[X] YES [ ] NO	[X] FOUNDATION [X] REGISTERED [X] CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? [X] YES [ ] NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

Nov 3, 1980
(DATE)

Robert W. Romig
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee ($250 filing fee and $250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

EXHIBIT A

8100014

ORIGIN AND BREEDING HISTORY OF THE VARIETY

Variety '771' (Experimental 77S 611) is a hard red spring wheat developed by individual plant selection from the cross, Klein Rendidor/2*Sonora//Inia/3/Ciano/4/Bluebird 4 (late) or Resic/Cajeme (late)[1]. Our pedigree for this variety is N3187-19A-1F-1A-OF. The female parent is a line we obtained from CIMMYT with the pedigree M24970-19M-2T-21M-1Y-OM. Cajeme, the male parent, is a CIMMYT variety derived from the cross Ciano/2/Sonora 64/Klein Rendidor/3/8156, II-23584-26Y-2M-3Y-2M-OY.

We made the cross in the greenhouse at Eden Prairie, Minnesota, in the winter of 1971-72. The F_1 was grown in the field at Eden Prairie in the summer of 1972. Single Plant selections in the F_2 to the F_5 were made alternating generations between Yuma, Arizona (F_2 and F_4) and Moorhead, Minnesota (F_3 and F_5). The F_5 row at Moorhead was harvested in bulk and F_6 seed planted in a preliminary yield trial at Yuma in 1974-75. Twenty heads were selected from the preliminary trial and planted the following year, 1976, in southern California to begin our head-row program. Eleven of the twenty head-row lines were maintained as pure-line increases and planted at Yuma in 1976-77. During the 1977-78 season at Yuma seed from the eleven head-row lines was yield tested in our elite trial and the integrity of the eleven head-row lines was maintained another generation for increase. In October, 1978, we selected one head-row line, 77ASH 20071, to represent the variety. This line has subsequently been maintained as a pure-line by bulk increases.

The variety appears to be uniform and stable based on our experience in multiplication and increase of variety 771. Foundation seed produced in 1979 has been inspected and approved by the Arizona Crop Improvement Association. There are no unusual or characteristic variations except that under conditions which may produce a border effect, such as skips within a row or between rows, the main culm or central tiller of an affected plant may extend up to 10 cm above the general plant canopy, while the lateral tillers of these plants may be 5-10 cm below the general canopy.

1/ Resic = Klein Rendidor /2* Sonora //Inia /3/ Ciano
Cajeme = Bluebird 4

EXHIBIT B (Revised)

Novelty Statement

Variety 771 is most similar to Probred but differs in heading date, height, test weight, and phenol reaction. Heading date of 771 is on the average two to three days later than for Probred. 771's height is 5-7 cm taller than that for Probred. The height of variety 771 ranges from 84 to 87 cm, depending on environment, compared with 79 to 80 cm for Probred under comparable conditions. Average test weight for 771 is 2-4 kg/hl lower than test weight for Probred. Phenol reaction for 771 is primarily brown whereas phenol reaction for Probred is brown-black.

FORM APPROVED: OMB NO. 40-R3822

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*TRITICUM SPP.*)

INSTRUCTIONS: *See Reverse.*

NAME OF APPLICANT(S)
Northrup King Co.

ADDRESS *(Street and No. or R.F.D. No., City, State, and ZIP Code)*
1500 Jackson St. N.E.
Minneapolis MN 55413

FOR OFFICIAL USE ONLY
PVPO NUMBER 8100014
VARIETY NAME OR TEMPORARY DESIGNATION
Variety 771

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. KIND:
[1] 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:
[1] 1 = SPRING 2 = WINTER 3 = OTHER *(Specify)* _____
[2] 1 = SOFT 2 = HARD 3 = OTHER *(Specify)* _____
[2] 1 = WHITE 2 = RED 3 = OTHER *(Specify)* _____

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:
[ ][ ][ ] FIRST FLOWERING
[ ][ ][ ] LAST FLOWERING

4. MATURITY *(50% Flowering)*:
[ ][2] NO. OF DAYS *EARLIER* THAN ..... [8] 1 = ARTHUR 2 = SCOUT 3 = CHRIS
[ ][2] NO. OF DAYS *LATER* THAN ..... [7] 4 = LEMHI 5 = NUGAINES 6 = LEEDS
7=Probred 8=Anza

5. PLANT HEIGHT *(From soil level to top of head)*:
[ ][8][8] CM. HIGH
[ ][6] CM. TALLER THAN ..... [7]
[ ][7] CM. SHORTER THAN ..... [8]
7=Probred 8=Anza
1 = ARTHUR 2 = SCOUT 3 = CHRIS
4 = LEMHI 5 = NUGAINES 6 = LEEDS

6. PLANT COLOR AT BOOTING *(See reverse)*:
[2] 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHER COLOR:
[1] 1 = YELLOW 2 = PURPLE

8. STEM:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[2] Waxy bloom: 1 = ABSENT 2 = PRESENT
[2] Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT
[1] Internodes: 1 = HOLLOW 2 = SOLID
[0][4] NO. OF NODES *(Originating from node above ground)*
[1][7] CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:
[2] Anthocyanin: 1 = ABSENT 2 = PRESENT
[1] Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:
[2] Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER *(Specify)*: _____
[2] Flag leaf: 1 = NOT TWISTED 2 = TWISTED
[ ] Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT
[2] Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT
[ ][ ] MM. LEAF WIDTH *(First leaf below flag leaf)*
[ ][ ] CM. LEAF LENGTH *(First leaf below flag leaf)*:

11. HEAD:

[1] Density: 1 = LAX 2 = DENSE 0861 9 NOV

[1] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER *(Specify)* _____

[4] Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

[1] Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED 5 = BROWN 6 = BLACK 7 = OTHER *(Specify)*: _____

[1][2] CM. LENGTH [1][0] MM. WIDTH

12. GLUMES AT MATURITY:

[3] Length: 1 = SHORT *(CA. 7 mm.)* 2 = MEDIUM *(CA. 8 mm.)* 3 = LONG *(CA. 9 mm.)*

[2] Width: 1 = NARROW *(CA. 3 mm.)* 2 = MEDIUM *(CA. 3.5 mm.)* 3 = WIDE *(CA. 4 mm.)*

[1] Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE

[3] Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

[1] 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

[1] 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

[3] 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED: 10/14/81

[3] Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

[1] Cheek: 1 = ROUNDED 2 = ANGULAR

[2] Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

[1] Brush: 1 = NOT COLLARED 2 = COLLARED

[4] Phenol reaction *(See instructions)*: 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

[3] Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER *(Specify)* _____

[0][7] MM. LENGTH [0][3] MM. WIDTH [3][8] GM. PER 1000 SEEDS

17. SEED CREASE:

[1] Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

[2] Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[2] STEM RUST *(Races)* QSHS TNMH [2] LEAF RUST *(Races)* CBC KGB [0] STRIPE RUST *(Races)* _____ [0] LOOSE SMUT

[0] POWDERY MILDEW [0] BUNT [ ] OTHER *(Specify)* _____

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SAWFLY [0] APHID *(Bydv.)* [0] GREEN BUG [0] CEREAL LEAF BEETLE

[ ] OTHER *(Specify)* _____ HESSIAN FLY RACES: [0] GP [0] A [0] B [0] C [0] D [0] E [0] F [0] G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Probred	Seed size	Probred
Leaf size	Probred	Seed shape	Probred
Leaf color	Probred	Coleoptile elongation	Probred
Leaf carriage	Probred	Seedling pigmentation	Probred

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggle and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. *(See attachment.)*

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

8100014

EXHIBIT D

ADDITIONAL DESCRIPTION OF THE VARIETY

Variety 771 is a cultivar of Triticum aestivum L. with spring growth habit. The kernels are red in color and ~~ovate~~ elliptical in shape. Cheeks are rounded and the crease is narrow to midwide and middeep. The brush is midsized and midlong. Seed size is about 7-8 mm long and 3 mm wide. The germ is small. The spike is awned, lax, and fusiform to oblong in shape. Glumes are white, glabrous, long, and midwide. Shoulders are narrow and wanting in shape. Beaks are acuminate and often are 10 mm long. The last rachis internode has short hairs. 10/14/81

Variety 771 is a semi-dwarf wheat with a height slightly taller than Probred. Resistance to lodging is good. This variety is on the average two to three days later than Probred for date of heading. In comparison to Anza, Variety 771 is earlier by one to six days for heading date but the difference has been greater at Woodland, California than Yuma, Arizona. Relative maturity for 771 is earlier than Anza and slightly later than Probred. Variety 771 is moderately resistant to stem rust (Puccinia graminis f. sp tritici:)and resistant to leaf rust (P. recondita) races CBC and KGB.

Stem Rust Race	Reaction
QSHS	2
RHRS	S
RKQS	2
RTQQ	2
TNMH	2, 2+
TNMK	2

Leaf Rust Race	Reaction
CBC	0;
KGB	0;

The coleoptile color is white and seedling anthocyanin is absent. Juvenile plant growth is erect. Plant color at boot is green to dark green. Waxy bloom is present on the flag stem and sheath but not as pronounced as some varieties.

The auricles are not hairy and may have a slight trace of anthocyanin. The stem is hollow and has no anthocyanin. Usually three-four nodes originate from the node above ground. The flag leaf is recurved at the boot stage and twisted. Plant color is green; anther color is yellow.

EXHIBIT D

Table 3. Height comparisons of Variety 771, Probred, and Anza at Yuma, Arizona and Woodland, California in replicated small plot trials in 1976-80.

Location and Year	Variety 771 cm	Probred cm	Anza cm	Difference from Probred cm	Difference from Anza cm
Yuma					
1976	83	72	94	+11	-11
1977	96	90	96	+6	0
1978	77	73	86	+4	-9
1979	96	93	105	+3	-9
1980	84	72	99	+12	-15
Average	87	80	96	+7	-9
Woodland					
1976	93	98	98	-5	-5
1977	76	74	90	+2	-14
1978	86	72	84	+14	+2
1980	82	73	97	+11	-15
Average	84	79	92	+5	-8

EXHIBIT D

Table 4. Heading date comparisons of Variety 771, Probred, and Anza at Yuma, Arizona and Woodland, California in replicated small plot trials in 1976-80.

Location and Year	Days from Jan. 1			Difference from	
	Variety 771	Probred	Anza	Probred Days	Anza Days
Yuma					
1976	79	72	79	+7	0
1977	80	80	80	0	0
1978	81	79	86	+2	-5
1979	96	96	95	0	+1
1980	73	72	81	+1	-8
Average	82	80	84	+2	-2
Woodland					
1976	103	98	108	+5	-5
1977	105	103	108	+2	-3
1978	83	81	92	+2	-9
1980	100	96	103	+4	-3
Average	98	95	103	+3	-5

Table 5. Quality comparisons of Variety 771 with Probred at Yuma, Arizona and at Woodland, California in replicated small plot trials in 1978.

	Yuma, AZ		Woodland, CA	
	Variety 771	Probred	Variety 771	Probred
Wheat Protein %	13.5	13.5	13.1	13.6
Test Weight	61.9	63.0	60.1	62.0
Milling Extraction %	70.3 G-	67.8 F+	67.4 F	68.4 G-
Farinograph				
Absorption	60.4	61.4	62.0	63.3
Peak	11.25	9.25	9.75	8.25
Stability	20.50	13.50	22.00	17.00
MTI	20	35	10	25
Valorimeter	83	75	79	74
Flour				
Ash	.359	.406	.373	.378
Protein	12.40	12.25	11.70	12.35
Bake				
Absorption	64.0 G	66.0 G+	64.0 G	67.0 VG-
Mix	4.50 VG-	3.75 G	3.75 G	3.00 G
Dough	5 G-	5 G-	6 G	6 G
Loaf Vo. cc	860 G-	895 G-	980 VG-	975 VG-
Score	27 G-	26 G-	32 G+	30 G
Overall Score	56 G-	54 G-	62 G-	61 G-

State of Delaware

Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "NORTHRUP KING CO.", CHANGING ITS NAME FROM "NORTHRUP KING CO." TO "NOVARTIS SEEDS, INC.", FILED IN THIS OFFICE ON THE THIRTIETH DAY OF DECEMBER, A.D. 1996, AT 9 O'CLOCK A.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

GREAT SEAL OF THE STATE OF DELAWARE • 1793 • 1847 • 1907 •

LIBERTY AND INDEPENDENCE

Edward J. Freel

Edward J. Freel, Secretary of State

0829320 8100

960389892

AUTHENTICATION: 8267947

DATE: 12-31-96

CERTIFICATE OF AMENDMENT OF CERTIFICATE OF INCORPORATION

OF

NORTHRUP KING CO.

It is certified that:

1. The name of the corporation (hereinafter called the "Corporation") is Northrup King Co.

2. The Certificate of Incorporation of the Corporation is hereby amended by striking out Section 1 thereof and by substituting in lieu of said Section the following new Section.

1. The name of the Corporation is Novartis Seeds, Inc.

3. The amendment of the certificate of incorporation herein certified has been duly adopted and written consent has been given in accordance with the provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware.

4. The effective date of the amendment herein certified shall be January 1,1997.

Signed on December 27, 1996.

Edward C. Resler
Vice President & Secretary